

# The Silent Man Speaks



Study shows evidence of a duodenal ulcer with associated spasm.

## His duodenal ulcer registers unspoken anxiety

He "seems" so willing to please—this silent man. When asked, he works unreasonable hours without complaint. He is imposed upon by family, relatives, friends—without question. Such a nice, quiet man—outside. But inside, flare-ups of abdominal distress betray his exasperation as well as his unspoken anxiety. In fact, his duodenal ulcer becomes his "spokesman."

## The need to treat G.I. hypermotility and hypersecretion

As his overanxiety has been building, so also has hypermotility and hypersecretion. Increased gastric secretions and hypermotility, of course, are conditions that adversely affect the healing process. This is where Librax—providing dual action—may be highly useful.

## The dual nature of Librax

Only Librax combines, in one capsule, the antianxiety action of Librium® (chlordiazepoxide HCl) and the antisecretory action of Quarzan® (clidinium

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Symptomatic relief of hypersensitivity, hypermotility, and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

**Contraindications:** Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following abrupt discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of child-

bearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than 1/2 capsule per day initially; increase gradually as needed and tolerated).

Thioridazine generally not recommended. If combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentially harmful drugs such as MAO inhibitors and phenothiazines.

Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and aggression) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary.

Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants;

causal relationship has not been established clinically.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone have been reported with Librax.

When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly.

## adjunctive Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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# Medical Tribune

and Medical News

Vol. 14, No. 38

world news of medicine and its practice—fast, accurate, complete

Wednesday, October 10, 1973

### Government Proposal

## Dr. Cooper Asks Hypotensive Drug Price Reduction

Medical Tribune Report

ATLANTA, Ga.—Dr. Theodore Cooper, director of the National Heart and Lung Institute, in an unprecedented move, has called on pharmaceutical manufacturers to reduce the price of antihypertensive drugs.

"We want to put the arm on the pharmaceutical industry to reduce their costs for the basic medication," said Dr. Cooper, speaking at the Georgia Heart Association's 25th annual scientific session for physicians and professional nurses.

"We think the justification for that lies in the fact that we expect an increase in the market."

Dr. Cooper, director of the National High Blood Pressure Program, pointed to "overwhelming figures" that could be calculated, using the current estimate that puts the number of hypertensives in the country at 23,000,000. In current studies, he said, the cost to those who need medication runs about 40 cents a day, on the average, but goes as high as two and a half dollars or more for certain types of patients.

"I think it is worth repeating the formula by which the pharmacist—the middleman in many systems—reaches the figure paid at the drugstore for medication. Per prescription, there is a certain cost for the drug. But there is also a certain handling cost."

"A very common" handling cost is \$2 per prescription, he said. "It doesn't really make any difference whether it is a very

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## Animal Model Developed For Myelocytic Leukemia

Medical Tribune Report

ISE-SHIMA, JAPAN—The first primate animal model for human acute myelocytic leukemia has been developed by scientists at the National Cancer Institute in Washington, D.C., the sixth International Symposium on Comparative Leukemia Research was told here.

In addition, nonhuman primate models for two more human cancers were described here by Dr. Richard H. Adamson, of the NCI Laboratory of Chemical Pharmacology.

The owl monkey, cinnamon rufous monkey, white-lipped marmoset, and cotton-top marmoset all develop lymphomas and acute lymphocytic leukemias, similar to those found in man, when inoculated with Herpes virus saimiri (HVS), Dr. Adamson said.

Human acute myelocytic leukemia developed in macaque monkeys after long-term, high-dose administration of a cytotoxic agent, procarbazine. They also developed lymphoma and hemangiosarcoma.

The acute lymphocytic leukemia found in the owl monkey after HVS inoculation, Dr. Adamson said, mimicked the disease in children, including its response to cytostatic arabinoside or a combination of prednisone and vincristine. Symptoms of lymphoma disappeared in the same species when treated with cyclophosphamide.

Dr. Adamson said that he is evaluating the effect of human interferon on cancer in his animal models.

Macaques were also the model for hepatocarcinoma caused by the mold aflatoxin B, the plant product cycasin, and three of the nitrosamines. Although diethylnitrosamine, dipropylnitrosamine, and 1-nitroso-piperidine all caused cancer, Dr. Adamson found that the diethylnitrosamine cancer most closely resembled the human disease; it responded to treatment with methotrexate and Adriamycin, or gallium. Methotrexate has been in clinical test for liver cancer, but this observation is the first time that Adriamycin or gallium has been used to treat this neoplasm.

## Head of Dooley Foundation Says U.S. Ignores Medical Needs of Cambodia

Medical Tribune Report

NEW YORK—The president of the Thomas A. Dooley Foundation, the Southeast Asia medical mission, charged here that the U.S. Government is indifferent to the medical needs of bomb-ravaged Cambodia.

Angrily describing frustrated efforts to get money and medical supplies from Washington, Dr. Verne Chaney told a press conference that the medical situation in Cambodia is desperate, tragic, and "a disgrace."

The 50-year-old California surgeon,

who has just returned from a three-month visit to Cambodia, said that scores of thousands of refugees in towns within a 100-mile radius of Phnom Penh, the capital, are without a single adequately equipped hospital. The overcrowded institutions, "with three and four patients to bed," lack medicines, x-ray equipment, surgical instruments, and electrical generators, Dr. Chaney declared.

"They tell us in Washington that they've sent \$180,000,000 in aid. I don't see what

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And Love His Countenance

## How Dr. Strangeface Learned to Stop Drooling

By JAMES E. TURNER, M.D.  
Memorial Hospital of DuPage County,  
Elmhurst, Ill.

### Winners Are Announced In Tribune Competition, Will Receive Dali Prints

Following are the first winning returns in the MEDICAL TRIBUNE Dali print sweepstakes:

ARIAS, HUGO, M.D.  
800 Pershing Drive  
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BAILEY, FREDERICK N., M.D.  
377 Park Street  
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Continued on page 5

AT PRECISELY 2 O'CLOCK on Thursday, June 14, while driving my van on a Minnesota vacation trip, I blinked and found that my left eye would not close. "Good heavens," I thought, "have I got Bell's palsy?"

Back at the motel, mugging the large wall mirror, I found the whole syndrome in full flower. The left upper eyelid was paralyzed in the open position, like an old window shade stuck at the top of its run. The mouth was askew, Jimmy Cagney style, producing problems in pronunciation, with sloppy sibilants and moistly explosive Porky Pig p's. The cornea was anesthetic, and noises were at least twice as loud on the left as on the right. I was to find that barking dogs, sneezes, and motorcycles on the left would produce acoustic stimuli bordering on the painful.

I got some methyl cellulose eyedrops and flesh-colored stick-on eye patches at the local pharmacy and, attired as Captain Hook, managed to drive 600 miles home. It is true that parallax of moving objects, perspective, relative size of objects, and

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## Early Diabetes Affects Nerves, EMGs Indicate

Medical Tribune World Service

BRUSSELS—Nerve conductivity is appreciably slowed even in borderline diabetes, a Japanese research team told the eighth Diabetes Congress here.

Motor conduction velocity in the tibial nerve was tested in 424 subjects with abnormal glucose tolerance tests, 492 diabetics, and 244 normal persons. Maximum speed in the electromyographic studies was 50.4 M./second in the diabetics, 52.0 in the borderline cases, and 53.7 in the normals.

These results indicated that diabetic neuropathy should be considered a concomitant phenomenon and not a late complication, said H. Hime and H. Uehara, of Okayama Red Cross Hospital.

### Radigold Pituitary Implant Used For Diabetic Retinopathy

From Nancy and Paris

Treatment of diabetic retinopathy with implantation of radioactive gold into the pituitary gland produces results comparable with removal or ablation of the gland, a group of French investigators reported.

The isotope was used in 27 patients, aged 20 to 65, who were observed for 36 to 50 months postoperatively. In 80 per cent of the patients, hemorrhaging decreased and exudate was reduced, with 37 per cent showing evidence of revascularization and 39 per cent better vision, the report said.

The investigators were G. Debry, J. Talarach, E. Saudax, C. Schaub, and P. Drouin, of Nancy and St. Anne Hospital, Paris.

### Three Main Syndromes Associated With Specific Pancreas Tumors

From Paris

The three main syndromes associated with non-beta-cell tumors of the pancreas are the Zollinger-Ellison syndrome, glucagonoma, and pancreatic cholera, Prof. Serge Bonfils, of Hôpital Bichat, Paris, told a panel on islet-cell tumors.

The Zollinger-Ellison syndrome is the most frequent, he said, and may occur alone or as part of a polyadenomatosis syndrome. In his own experience, 13 of 53 cases were polyadenomatosis-associated.

## Computer May Be Pandora's Box for Medicine

Medical Tribune World Service

GHEENT, BELGIUM—The computer may prove to be a Pandora's box of negligence litigation in the health-care field, a Canadian insurance official warned here.

Lorne Elkin Rozovsky, departmental solicitor for the Nova Scotia Hospital Insurance Commission in Halifax, told the third World Congress on Medical Law that thus far there has been almost no such litigation but that at least one Canadian court has given an indication of what may be in prospect.

The court stated that "it is incumbent

### Volunteers Are Wanted To Test Aspirin Theory

Medical Tribune World Service

DUBLIN—Wanted: 2,500 medical men and women willing to take two aspirins a day for five years to test the theory that the drug can help prevent heart attacks.

Dr. James McCormick, Professor of Social Medicine at the University of Dublin, is setting up the international experiment.

"We are not risking gastric effects. People with any history of gastric trouble—e.g., ulcers—will not be acceptable for the research."

### Goats Vaccinated for Brucellosis



In a campaign to end epidemics of brucellosis, or Malta fever, among the human population, the health authorities of Peru have launched a vast operation to vaccinate hundreds of thousands of goats, the primary source of infection. *WHO Photo*

### Macrovascular Problems Offset By Blood Pressure Control

From University of Tokyo

► Macrovascular complications of diabetes are better offset by weight and blood pressure control than by reducing hyperglycemia, according to a Tokyo team.

A five-year study of 373 diabetics (150 for 10 years) showed little correlation between success of therapy with insulin or oral drugs and development of hypertension or electrocardiographic signs of heart disease.

Retinopathy, however, was favorably influenced by good diabetes control. Coauthors were Eishi Miki, Takehiko Ide, Yasuo Akunuma, Hiroshi Kajinuma, Yasunori Kanazawa, Hiroyuki Sando, Masaki Hazashi, Takeshi Kuzuya, and Kinori Kosaka, of the University of Tokyo.

### Sluggish Insulin Response Tied To Early Signs of Neuropathy

From Tokyo

► Another Tokyo team reported that sluggish insulin response to glucose loading correlates well with early signs of neuropathy in borderline diabetics.

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3. Winners receive a print from the Dalí Collection. We cannot guarantee that prints from the collection will be received. All weekly winners selected by random drawing from all entries received each week. Grand Prize winner selected from all entries received.

4. Entries must be postmarked by September 10-October 31, 1973. All entries must be postmarked by November 7, 1973, and received by November 15, 1973.

5. Winners will be notified by mail.

6. Sweepstakes open to all persons, except employees and their families of Medical Tribune, its subsidiaries, advertising agencies, and affiliated organizations, and individuals responsible for the conduct of the sweepstakes.

7. Program judged and supervised by Robert Scott Intermar, Inc., an independent judging organization.

Wednesday, October 10, 1973

## Vermin Clean-Up In N.J. Hospitals Creates Dispute

*Medical Tribune Report*

TRENTON, N.J.—After two weeks on the warpath over unsanitary conditions in the kitchens of New Jersey health facilities, the director of Consumer Health Services for the New Jersey Department of Health has had his feathers clipped.

In closing kitchens and bakeries in nine state-operated health facilities—including New Jersey's second largest hospital, Newark's Martland—Oscar Sussman, D.V.M., succeeded in infuriating his boss, the state health commissioner, several hospital administrators, the state's acting director of institutions and agencies, the state attorney general, and perhaps even the governor.

Dr. James R. Cowan, the state health commissioner, reportedly threatened to fire Dr. Sussman, who is protected by Civil Service, but instead settled for issuing new procedures curbing Dr. Sussman's powers.

There is a "fundamental difference," Dr. Cowan said, between retail food establishments, which until recently were the sole concern of Dr. Sussman's office, and kitchens in health facilities. Patients are captive, he said, and "medical considerations must be taken into account."

### Capacity Is Questioned

"Dr. Oscar Sussman," he fumed, "who is a veterinarian, does not have the capacity to make a medical judgment as it relates to patient care in a health facility."

"I am horrified," Dr. Sussman shot back, "to think that physicians, who operate certain hospital facilities, who supposedly 'have the capacity to make a medical judgment as it relates to patient care,' have so little capacity to comprehend that when a person is sick and depressed, that he should not be fed from a hazardous, greasy, filthy, roach and rodent-infested kitchen. We discovered almost a third of the state institutions to be unsanitary, while only 3 percent of crappy little pizza parlors were unsatisfactory."

In almost all of the facilities ordered closed, Dr. Sussman said, "it was not a matter of a few roaches, but of hundreds. And roaches carry Salmonella. We also found flies, rodents, grease, dirt, and grime."

At the Martland Medical Center, the main teaching hospital of the College of Medicine and Dentistry of New Jersey, a spokesman said that the hospital had requested an inspection to see if the sanitary guidelines were being followed. "The inspectors went a little further than that," he said. "Our kitchen was closed for 10 hours. No meals were missed, however."

At the Alexian Brothers Hospital in

Five-Time Winner



Wide World Photo  
Dr. Robert Magoon, of the University of Miami (Fla.), has won his fifth U.S. offshore powerboat championship and was featured in *Sports Illustrated*.

## Good Pain Relief Cuts Chances Of Euthanasia Law in Britain

*Medical Tribune World Service*

GHEENT, BELGIUM—Dying patients seldom ask for euthanasia. Many of them do not realize they are dying, and when they do, those whose work lies principally among the old and dying, fear the possibility of its success."

These were among the conclusions of a report prepared by a special panel of the British Medical Association's Board of Science and Education, Dr. Philip H. Addison, secretary of the Medical Defense Union in London, told the third World Congress on Medical Law here.

"The majority of deaths in the present day and age are peaceful, whatever the nature and character of the preceding illness," Dr. Addison said.

He noted that the current law in the United Kingdom is such that a doctor is entitled to do all that is proper and necessary to relieve pain and suffering, even if the measures he takes might incidentally shorten life.

"It has been said that modern medicine can now overcome pain without shortening life, and if this is really so, then the case for legalizing euthanasia is considerably weakened," he observed.

Dr. Addison said that when an attempt was made to legalize voluntary euthanasia in 1969, "the rejection of the bill reflected the wishes of the great majority of medical men and women in Great Britain, and there can be no doubt at all that the vast majority of members of the medical profession would, at any rate at the present time, be opposed to the introduction of legalized voluntary euthanasia."

"We would just appreciate it if we were given more time to correct our problems before being ordered to close," he said. "A reputation built up over 80 years in the hospital field can be destroyed by one inspection."

## Polyunsaturated Fats Linked To Increased Risk of Cancer

*Medical Tribune World Service*

TRINITY NATIONAL UNIVERSITY, CANBERRA, NO conclusive proof exists that polyunsaturated fats may be increasing their risk of developing cancer, an Australian investigator told the annual congress of the Australian and New Zealand Association for the Advancement of Science here.

Further, said Dr. C. E. West, of Aus-

tralia, "there is no evidence that polyunsaturated fats, largely vegetable oils, prevent heart disease."

Dr. West said studies in 1971 showed an increase in cancer incidence among groups in Los Angeles using polyunsaturates. They also showed an increased need for vitamin E intake.

The possible harmful effects of polyunsaturated fats in the diet have often been glibly dismissed—despite the relatively short time of exposure of Western communities to large amounts of these fats," Dr. West commented. "Adequate control should be considered carefully before widespread manufacture of these products comes and it is too late."

Nearly 95 per cent of the employees are expected to donate a pint of blood or a day's salary or both in a continuing fund-raising campaign.

According to a hospital spokesman, the hospital is losing money because it is inadequately reimbursed for patients by government and insurance agencies and because it has been unable to raise fees under the Economic Stabilization Program.

He said that clinical trials have not shown reduction of the death rate with the use of polyunsaturated fats. Although they have shown a reduction in male deaths from heart disease, total mortality has not been significantly reduced, he said.

### ECTOPIC BEAT

"Words, he emphasizes, are more important than we think; 'two ambiguous monosyllables—'Fed' and 'cold' can murder a multitude.'

—*Mayo Clinic Proceedings*  
Murdered multitude or no murdered multitude, we still don't get it.  
(Regular beat Immateria Medica, page 27.)

• • • • • (SEE PRECEDING PAGE FOR SWEEPSTAKES DETAILS) • • • • •



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## One Man...and Medicine

ARTHUR M. SACKLER, M.D.,  
*International Publisher, Medical Tribune*



### New—A National CPC

INEVITABLY, medicine colors everything we do—how we think, how we act. As physicians, we tend to take many things for granted. When medicine becomes a way of life, some things become so ingrained as to be reflex and many an action becomes an unconscious act. Take the clinical-pathological conference as an example. Here is a unique institution in hospital after hospital, state after state,

When our national clinical-pathological conference is over, Americans, both physicians and ordinary citizens, must face the facts. As great as our system is, as powerful as our organs are, they are not perfect. In fact, regardless of size or strength, they are delicate mechanisms. They can and have been compromised. When the hearings are over, we must have a sound and honest diagnosis and prognosis. We must face and accept and fulfill the therapeutic actions which are indicated. Above all, we must recognize that the failure to diagnose the ill, the unwillingness to accept the findings of the diagnostic tests, may constitute as great a constitutional danger for our body politic, for the fabric of our constitution, and for the structure of our government as is exposed for critical examination. As every physician can testify, the clinical-pathological conference, certainly in medicine, is all to the good.

America is today taking part in a national CPC—a clinical-pathological conference on our political process and on the exercise of legislative power. The behavior of many in the highest echelons of government is exposed for critical examination. As every physician can testify, the clinical-pathological conference, certainly in medicine, is all to the good.

### Precise Diagnosis Needed

But, as in medicine, so too in the present situation. The diagnosis must be as precise as can be made. The therapy must be as fitting as is possible. But in all that is done, the rights we seek to preserve must be recognized as precious and delicate. They must be handled with humanity, but firmness, for those who have consciously trespassed, with understanding for those who truly have unwittingly erred. But above all, they must be handled with a recognition that all of us, physician and patient, politician and public, Democrat and Republican—all of us—have failed, some in little ways, some in very big ways. All of us are tempted to cut a corner or pull a string or blink an eye, as when a ticket is fixed. If ever there was an example of malignant escalation, a demonstration as to what happens when basic principles are disregarded, first on a little scale, then on a moderate one, then more and more—this is it. The Dick Tuck tricks of some Democrats were no mere "pranks." The Black Advance of some Republican functionaries was no simple extension of the Dick Tuck tricks. One does not exculpate the other. Neither can be justified. To simply say one guy developed a "technique" and the other guys ran it into the ground is frightening, not funny.

All of us must engage in self-examination. When did the "nodule" first show? How did we miss the early symptoms? Did we miss them, or did we "accommodate" to them? Clearly, we failed to act when the tiny nodule first appeared, failed to acknowledge signs of our social cancer. To fail at this juncture to acknowledge the existence of a malignant process is to permit its growth and ultimately its metastasis. Failure to treat or excise our social cancers can jeopardize our survival.

Let us hope that, as in the case of our traditional CPC, our national CPC will not be in vain, that it will prove equally fruitful, that it will assure a better and healthier nation—a free and democratic society in which can be fulfilled the aspirations for "life, liberty, and the pursuit of happiness."

Wednesday, October 10, 1973

## Aspects of Medicine in China

By H. LEN TSENG, M.D.  
Chief of Anatomical Pathology,  
Sudan Elizabeth's Hospital,  
Washington, D.C.

DURING MARCH AND APRIL I made a private visit to the People's Republic of China and was permitted to observe medical practice, the training of medical and paramedical personnel, and acupuncture as anesthesia and therapy.

### Acupuncture

I observed closely a ureterotomy for the removal of calculus in the upper third of the right ureter under acupuncture anesthesia. The patient was a male of about 30 years of age. He received the usual dose of sodium amytal the night before. Thirty minutes before the operation began, two acupuncture needles were inserted on the right flank, followed by two more in the middle of the forehead and two on the tip of the nose. These six needles were then connected to an electrical box of 9 volts of direct current to produce continuous stimulation through the needles. After all the needles had been completely inserted and connected with the electric box, a dose of 50 mg. of meperidine was injected through the I.V. infusion tube, which was already

started. This was the only medication the patient received throughout the whole procedure, besides the sodium amytal given the night before. The whole operation lasted approximately 40 minutes while the patient lay in the usual nephrectomy position. I conversed with the patient during the entire operation. He was never unable to answer my questions clearly; he even smiled on several occasions. The calculus removed was about 2.5 x 1.5 cm. in diameter. Again, I observed a partial gastrectomy for chronic peptic ulcer of the duodenum under acupuncture anesthesia at the Human Medical School First Affiliated Hospital. The patient received the same medication—i.e., 100 mg. of sodium amytal the night before the operation and 50

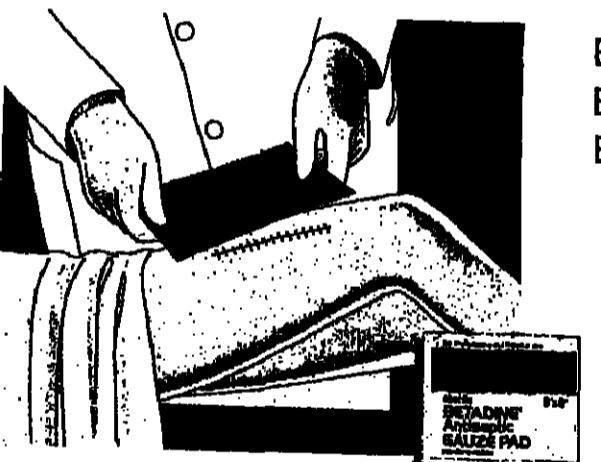
mg. of meperidine through I.V. infusion tube shortly before the operation. I was told at both places that the acupuncture anesthesia works best in neck surgery, but muscle relaxation is sometimes not satisfactory in abdominal surgery. However, open heart surgery has been successfully performed in Fu-Wai Hospital in Peking.

In Chung Shan Medical School Hospital, I visited a special ward where four patients with peptic ulcer of the duodenum, proved roentgenologically, had undergone treatment with acupuncture and herb medicines. Success is claimed in 52 per cent of their patients. The treatment consists of daily acupuncture five days a week, in addition to the herb medicine for four weeks.

These patients received two acupuncture needles on the upper abdominal wall and two on the left leg, three fingers below the inferior border of patella and at the junction between the head of the fibula and the tibia. This point is very important in any abdominal condition. These four needles are then connected to an electrical box similar to the one used in acupuncture anesthesia, except that this box is of 6 volts instead of 9.

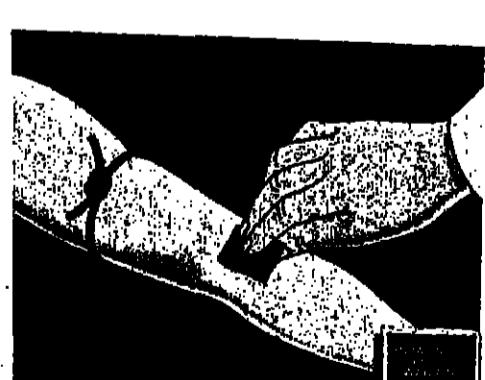
At Human Medical School First Affiliated Hospital, a special ward of approximately 20 beds is assigned to a team of physicians who treat abdominal surgical conditions—i.e., peritonitis resulting from

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rial catheterization; in disinfestation of skin  
in minor wounds; in preoperative oral tissue  
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Small single-use antiseptic pad for prompt degerming of  
aspirations, catheterization and surgery... and in cuts,  
minor wounds, burns, lacerations and abrasions.

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acute pancreatitis, ruptured appendix, and ruptured peptic ulcer. According to the physician in charge, they have so far treated 11 cases of acute pancreatitis, diagnosed by clinical history, physical findings, and enzyme studies, including amylase and lipase of serum as well as diastase of urine. The only surgical procedure done for these patients is incision and drainage of localized abscess formation. They reported only one death in these cases.

### Medical Practice

The story of the barefoot doctor has been reported many times by various visitors, medical and nonmedical, to the People's Republic of China. What has not been written is the story of the barefoot midwives and "red medicine." I had a panel discussion with physicians who train these paramedical personnel in the First People's Hospital in Canton. The first question was pertaining to the prenatal care. I was told that this was done by the "barefoot midwives," who are given six months' training to recognize the position of the fetus, measure the blood pressure, examine the urine and hemoglobin by manual methods, etc.

I was astonished to hear from them that serology is unnecessary in China now, because there is no longer any syphilis. This was later verified by the deputy chief of obstetrics and gynecology of Kiangsi Medical School, who told me that there were stillborns due to syphilitic mothers in the first two to three years after 1949 but none since then among more than 20,000 deliveries. She had seen only two cases of erythroblastosis fetalis due to Rh or ABO incompatibility among the same number of deliveries.

As to the elderly people of the city, I was told that they are visited by the cadres, who receive the same training as the barefoot doctors but are called by a different name, "red medicine." They visit the patients at their homes in the mornings and evenings, and if they think the patient's condition has deteriorated or complications have arisen, they report this to the emergency room of the hospital that has been assigned to cover that particular part of the city. An ambulance is then sent, and the patient is examined and admitted to the hospital if necessary. The hospital cost is 10 cents a day.

All these paramedical personnel—the barefoot doctors and midwives in the city—receive six months' further training after they have worked on the job for about two years. Those who show the most potential are admitted to medical school to be trained as physicians. The qualities taken into consideration include not only medical skills but also the desire to serve the people without any selfishness, as well as the correctness of political thoughts. All paramedical personnel are required to give vaccinations and check the sanitation for preventive medicine, treat common colds, headaches, and minor diseases, and attend simple injuries, including sutures of superficial wounds and fixing fractures with splints. Through universal vaccination, infectious and parasitic diseases, which were flourishing in China before 1949, are now almost completely eradicated.

### Training of Medical Personnel

All hospitals and medical schools which had been built before 1949 have been expanded, and new ones have been erected. Before 1949, there were 200 beds in the teaching hospital of Hsiang-Ya (Yale in China) Medical School, and the old medical school, now known as Human Medical School, admitted approximately 40 to 50 students annually. Classes have been expanded to 600 annually for the past three years, with total enrollment of about 1,800 at present. The hospital has also been enlarged to 750 beds. A new, second affiliated hospital of 750 beds has been built at another location. Together with two other small hospitals, there is a total of 2,000 beds for clinical teaching. The medical school was closed during the cultural revolution from 1966 to 1969, but since 1970, 600 students have been admitted annually.

Slowly the embryo was injected into the uterus—its movement monitored by microscopy. On the fourth and fifth days after implantation, there were definite indications from tests that the embryo was

*Continued on page 15*

Wednesday, October 10, 1973

## Test-Tube Embryo Experiment to Be Repeated

Medical Tribune World Service

MELBOURNE, AUSTRALIA—The research team here that claims to have succeeded in implanting a test-tube embryo in a womb is about to repeat the experiment. Dr. John Leeton, of Monash University, told MEDICAL TRIBUNE:

"There is a powerful demand for this work, and we believe it should be done. If we wait for the community to formulate absolute guidelines on this sort of work, we would never make any progress. We have to press on."

The investigators are fully aware of the moral and social implications of their research, he said, and plan to tell what they are doing so that the public can share their problems.

Their experiment is believed to be the only research of its kind in Australia and probably, at the moment, in the world, he said.

The team of Melbourne physicians—led by Dr. Leeton and Dr. Carl Wood—took an ovum from a 36-year-old woman, fertilized it in a test tube, and three days later implanted it in her womb. The pregnancy lasted nine days after the implantation, performed at the Queen Victoria Hospital.

Most of the studies of ways of keeping the fertilized ovum alive in the test-tube stage were done by Dr. John Lopata, of the Monash University Department of Obstetrics and Gynecology.

The technique was perfected after four years' work by the Queen Victoria Hospital-Monash team and a number of veterinary and human biology investigators.

### Work Done Elsewhere

Similar work has been done elsewhere in Australia and overseas, but it is thought not to have been successful.

A second implanting operation was performed recently by the team, but the results were not conclusive.

The first woman in the world to become pregnant by the technique is a 36-year-old wife of a Victoria farmer. She has been unable to conceive. Her right ovary and fallopian tube were removed at 18 because of damage, and her left fallopian tube was 10 cents a day.

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Slowly the embryo was injected into the uterus—its movement monitored by microscopy. On the fourth and fifth days after implantation, there were definite indications from tests that the embryo was

*Continued on page 15*

implanted and was developing. A pregnancy—and proof of success—was measured by readings of gonadotrophin excretion. These excretions, which can be measured at the seventh day of pregnancy, rose sharply.

A surgical complication from another operation done on the woman days before the transplant probably caused the embryo to abort, the investigators said. (A healing lower abdominal wound from the earlier operation burst on the sixth day of pregnancy and had to be repaired.)

### Pregnancy Kept Secret

The pregnancy was kept secret for six weeks while the team examined evidence that it had actually taken place. The evidence has been shown to a number of leading human and animal production experts, and a full report on the pregnancy and technique has been prepared for the Lancet.

Drs. Leeton and Wood believe that more work is needed to iron out "trouble spots" in the technique. It is likely that calf serum used in the early stages of the test-tube development will be replaced as a growth medium.

Further, the method of "washing"

sperm has been rejected and another method selected.

In the MEDICAL TRIBUNE interview, Dr. Leeton commented:

"The work we've been doing is clinically oriented. We saw a need for women with blocked tubes to have this done so they could have children. We can't see any problem in this area. It's morally acceptable. But in the long term—and I don't think this will happen in my lifetime—I can see big problems arising."

He believes the era is now not far off when it will be possible to fertilize one woman's ovum in a test tube and then implant it in another woman's womb.

This, Dr. Leeton observed, could lead to a new occupation for women—that of "incubator" for other people's children. The professional woman—or the woman who did not want to give up her job—could hire an "incubator" to bear her family.

Commenting on the ethical aspect of this prospect, the head of the University of Sydney's School of Biological Sciences, Prof. Charles Birch, said: "What happens to the wretched girl who carried the child? How will she feel about giving it up? I foresee this as one of the major problems."

## Diseases on Rise in Asia



The World Health Organization has reported that cholera, smallpox, and malaria are on the rise again in India and other nations of the region. Calling for vigorous efforts by governments and international agencies to control these diseases, Dr. Mahler, director-general of WHO, said there were several major epidemics in Bangladesh and the north-east belt of India.

Before prescribing or administering, see Sandoz literature for full product information. The following is a brief summary.

**Contraindications:** Severe central nervous system depression, comatose states from any cause, hypertensive or hypotensive heart disease of extreme degree.

**Warnings:** Administer cautiously to patients who have previously exhibited a hypersensitivity reaction (e.g., blood dyscrasias, jaundice) to phenothiazines. Phenothiazines are capable of potentiating central nervous system depressants (e.g., narcotics, sedatives, alcohol, etc.) as well as atropine and phosphorus insecticides. During pregnancy, administer only when the potential benefits exceed the possible risks to mother and fetus.

# Obstreperous!



## Disorderly behavior... sudden changes in mood... impairment of orientation

**Precautions:** There have been infrequent reports of leukopenia and/or agranulocytosis and convulsive seizures. In epileptic patients, anticonvulsant medication should also be maintained. Pigmentary retinopathy may be avoided by remaining within the recommended limits of dosage. Administer cautiously to patients participating in activities requiring complete mental alertness (e.g., driving), and increase dosage gradually. Orthostatic hypotension is more common in females than in males. Do not use epinephrine in treating drug-induced hypotension since phenothiazines may induce a reversed epinephrine effect on occasion. Daily doses in excess of 300 mg. should be used only in severe neuropsychiatry conditions.

**Adverse Reactions:** **Central Nervous System**—Drowsiness, especially with large doses, early in treatment; infrequent, pseudoparkinsonism and other extrapyramidal symptoms; nocturnal confusion, hyperactivity, lethargy, psychotic reactions, restlessness, and headache. **Autonomic Nervous System**—Dryness of mouth, blurred vision, constipation, nausea, vomiting, diarrhea, nasal stuffiness, and pallor. **Endocrine System**—Gynecomastia, breast engorgement, amenorrhea, inhibition of ejaculation, and peripheral edema. **Skin**—Dermatitis and skin eruptions of the urticarial type, photosensitivity. **Cardiovascular System**—ECG changes (see *Cardiovascular Effects*, below). **Other**—A single case described as porphyrid swelling.

The following reactions have occurred with phenothiazines and should be considered. **Autonomic Reactions**—Miosis, obstipation, anorexia, paralytic ileus. **Cutaneous Reactions**—Erythema, exfoliative dermatitis, contact dermatitis, urticaria, anemia, aplastic anemia, pancytopenia. **Allergic Reactions**—Fever, lymphadenopathy, angioneurotic edema, asthma. **Hepatotoxicity**—Jaundice, bilious stools. **Cardiovascular Effects**—Changes in terminal portion of electrocardiograms, including prolongation of Q-T interval, lowering and inversion of T-wave, and appearance of a wave tentatively identified as a bifid T or U wave have been observed with phenothiazines, including Mellaril (thioridazine); these appear to be reversible and due to altered re-polarization not myocardial damage. While there is no evidence of a causal relationship between these changes and significant disturbance of cardiac rhythm, several sudden and unexpected deaths apparently due to cardiac arrest have occurred in patients showing characteristic electrocardiographic changes while taking the drug. While proposed, periodic electrocardiograms are not regarded as predictive. Hypotension, rarely resulting in cardiac arrest. **Extrapyramidal Symptoms**—Akathisia, agitation, motor restlessness, dystonic reactions, trismus, torticollis, opisthotonus, oculogyric crises, tremor, muscular rigidity, and akinesia. **Persistent Tardive Dyskinesia**—Persistent and sometimes irreversible tardive dyskinesia, characterized by rhythmic involuntary movements of the tongue, face, mouth, or jaw (e.g., protrusion of tongue, puffing of cheeks, pucking of mouth, chewing movements) and sometimes of extremities may occur on long-term therapy or after discontinuation of therapy, the risk being greater in elderly patients on high-dose therapy, especially females; if symptoms appear, discontinue all antipsychotic agents. Syndrome may be masked if treatment is reinstated, dosage is increased, or antipsychotic agent is switched. Fine vermicular movements of tongue may be an early sign, and syndrome may not develop if medication is stopped at that time. **Endocrine Disturbances**—Menstrual irregularities, altered libido, gynecomastia, lactation, weight gain, edema, false positive pregnancy tests. **Urinary Disturbances**—Retention, incontinence. **Others**—Hyperpyrexia; behavioral effects suggestive of a paradoxical reaction, including excitement, bizarre dreams, aggravation of psychosis, and toxic confusional states; following long-term treatment, a peculiar skin-eye syndrome marked by progressive pigmentation of skin or conjunctiva and/or accompanied by discoloration of exposed sclera and cornea; stellate or irregular opacities of anterior lens and cornea.

**for the agitated geriatric with senile psychosis**  
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# THE HIGH COST OF EXCESSIVE ANXIETY

## IN PSYCHOLOGIC SUFFERING

Excessive anxiety is generally recognized as a distressing emotional experience and is frequently present in some neurotic states. Excessive anxiety, untreated, can often become chronic, sometimes inhibiting effective action and self-realization. By relieving the patient's excessive, disabling anxiety, the physician can help the patient diminish his maladaptive behavior and confront his life problems more effectively.

## IN DISTURBED PHYSICAL FUNCTION

Pronounced anxiety can affect virtually every body system according to the individual pattern of response. Thus, anxiety can lead to a variety of psychophysiological sequelae such as tachycardia, muscular spasm, sweating, gastrointestinal disturbances and others.

In organic disorders, the patient's excessive anxiety may exacerbate organic symptoms and adversely affect the course and management of the condition; e.g., in angina pectoris, hypertension and duodenal ulcer. Atten-

tion to excessive anxiety and emotional tension thus becomes a vital part of effective total management of the patient.

## IN DISRUPTED PRODUCTIVITY AND PERFORMANCE

While a reasonable amount of anxiety is a motivating, alerting force, the deleterious effects of disproportionate anxiety on performance in any activity calling for concentration and sustained effort are well known. Often, it is the disturbing effect of anxiety on work productivity that brings the patient to the physician. Mounting anxiety, unrelieved, may impair both mental and physical performance.

*Markman, J. M. M.D.*

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Wednesday, October 10, 1973

**On developments in gastroenterology**



**The Consultant**  
DR. HENRY D. JANOWITZ  
*Clinical Professor of Medicine  
Mount Sinai School of Medicine  
New York, N.Y.*

*"I believe it is important to continue to separate the disorders of the colon."*

What are the most significant developments in recent years in the field of gastroenterology?

1. The isolation, purification, and chemical analysis of the gastrointestinal hormones gastrin, secretin, and cholecystokinin-pancreozymin, and especially the development of the radioimmunoassay method for measuring gastrin. This has been paralleled by the clinical recognition of the gastrin-secreting tumor (usually but not always in the pancreas) of the Zollinger-Ellison syndrome and its treatment by total gastrectomy. Along with the specific identification of these hormones is the awareness of the wide range of their secretory, inhibitory, and motor effects throughout the entire gut and the associated glands of digestion, the liver and pancreas.

2. The development of instrumental techniques to visualize and especially to biopsy the entire gastrointestinal tube has opened up a new era in both diagnosis and therapy. The development of the small-bowel biopsy technique has indeed revolutionized our understanding and management of disorders of malabsorption and malabsorption. Celiac disease and Whipple's disease are now curable—one by the use of the gluten-free diet, the second by the use of antibiotics.

The visualization of the main pancreatic ducts by retrograde cannulation through the ampulla of Vater is the most recent and exciting development in this area; its full usefulness remains to be determined.

3. The discovery that several diarrheal diseases (of infectious nature)—cholera, shigellosis, and probably some enteroviruses—turn on a powerful secretory mechanism in the small bowel, with the profuse loss of fluids and electrolytes.

4. Recognition that cholesterol gallstones result from the elaboration by the liver of a "lithogenic" bile, in which the solubilizing properties of bile salts and phospholipid are exceeded by the ratio of cholesterol. This, in turn, has led to the exciting current trial of dissolving gallstones by feeding chenodesoxycholic acid to patients with cholesterol gallstones.

5. The discovery by Blumberg of the Australia antigen and its identification with hepatitis virus B is clearly the outstanding discovery in the field of liver disease and holds forth the prospect of a vaccine against this type of hepatitis.

How can ulcerative colitis and regional granulomatous colitis (Crohn's disease) be differentiated, and is it important to do so?

In the majority of patients these two varieties of inflammatory bowel disease can be separated; perhaps in 15 per cent of patients they cannot. This may simply reflect the fact that there are many other colonic

the GI tract from stomach to anus, spares the rectum, very frequently includes the ileum as well as the colon, has bleeding less often, fistulates into the whole host of neighboring organs, develops marked perianal involvement, is not cured by resection, and is followed by a very high rate of recurrence (30-50 per cent).

I believe it is important to continue to separate the disorders of the colon:

- To extend our knowledge and, hopefully, our thinking. Imagine if we still lumped all "pneumonias" together!

• Crohn's disease of the colon has a high rate of recurrence, even after total colectomy (and certainly after partial resection). Recurrence of granulomatous inflammation in an ileostomy is a nasty business. This does not occur after total colectomy for ulcerative colitis.

What are the indications for surgery in a patient with ulcerative colitis?

Certain indications seem to me to be absolute:

- Perforation.
- Toxic megacolon.
- Intractable bleeding (which will require excision of the rectal segment at one sitting).
- Stricture, which does not allow com-

plete visualization (by barium or endoscopy), and biopsy, since the stricture may be mimicked by cancer.

More difficult to evaluate is (1) failure to manage the patient's clinical course with an acceptable level of disability with current medical modalities (antibiotics, steroids, and immunosuppressive therapy). (2) Growth retardation and sexual development at puberty have until recently been considered valid reasons for colectomy in ulcerative colitis. Yet some recent evidence is not totally convincing in this regard. (3) In view of the clearly increased incidence of cancer in long-standing ulcerative colitis, especially in quiescent or healing stages, the desirability of colectomy to prevent cancer remains in dispute. I do not favor colectomy at any fixed arbitrary date of duration. The value of carcinogen-bryonic antigen measurement does not yet seem helpful. Perhaps repeated colonoscopy with multiple biopsies will prove helpful.

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- Stricture, which does not allow com-

## Apresoline®...an antihypertensive idea whose time has come

A flexible approach that helps meet the goals of today's new therapeutic concepts

Early and more vigorous treatment of hypertension.

More adequate control of blood pressure. Antihypertensive regimens closely molded to individual requirements.

These goals can be met in part with Apresoline, which can be combined, for added control, with other antihypertensives—thiazide and nonthiazide diuretics, and sympathetic-inhibiting agents. The result: greater choice to the physician in constructing an appropriate regimen.

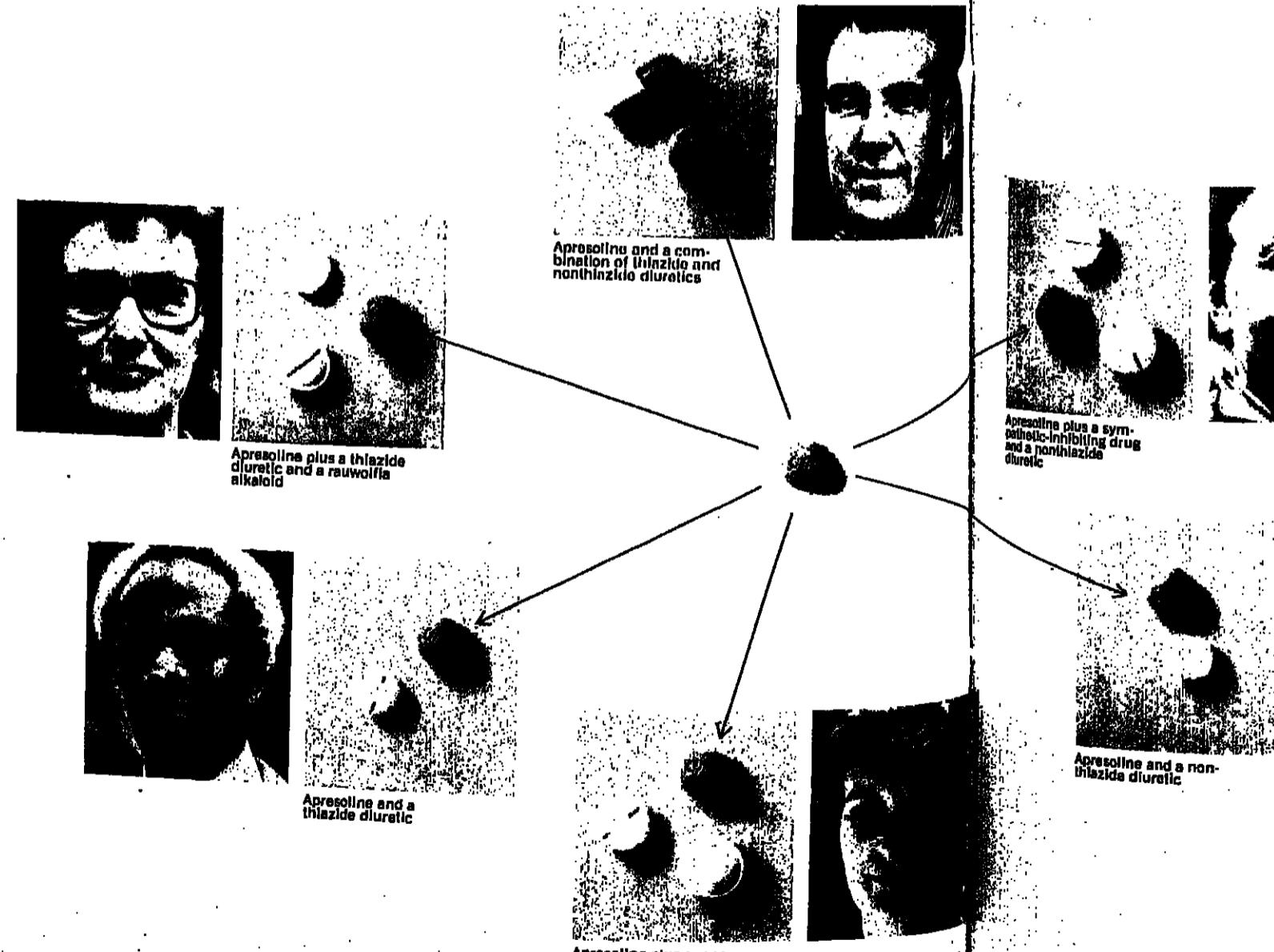
### Works like no other oral antihypertensive

Apresoline appears to act directly on the arterioles. By relaxing arteriolar smooth muscle, it decreases peripheral vascular resistance—decreases arterial pressure.

Apresoline also helps to maintain or increase renal and cerebral blood flow.

When Apresoline is added to existing regimens, dosages of each drug are usually lower than when used alone, thus tending to reduce risk of side effects.

### Now...Apresoline® (hydralazine)



#### High BP Down Under

Medical Tribune World Service

SYDNEY, AUSTRALIA—Prevalence studies carried out in Busselton, Western Australia, in 1969 and in Albury, New South Wales, in 1971 showed a high incidence of hypertension in Australia—confirming results obtained by overseas studies.

#### Apresoline® hydrochloride (hydralazine hydrochloride)

TABLETS

##### INDICATIONS

Essential hypertension, alone or as an adjunct, in the presence of any unexplained

hypertension; coronary artery disease; mitral valvular rheumatic heart disease.

Chronic administration of doses over 400 mg per day may produce a syndrome

leading to a clinical picture similar to acute

systemic lupus erythematosus. In rare cases

it may occur at lower doses. Most of these

reactions are reversible upon withdrawal of therapy, but long-term treatment with steroids may be necessary. An L.E. cell preparation is not needed in the presence of any unexplained peripheral neuritis, evidenced by paresthesias, numbness, tingling, and/or pain observed.

Published evidence suggests an antipyretic effect and addition of pyridoxine to the regimen

symptoms develop.

Although there has been no adverse experience with Apresoline in pregnancy, the drug should be used only when, in the opinion of the physician, it is deemed essential to the welfare

of the patient.

Use cautiously in suspected coronary artery or

other cardiovascular disease, cerebral vascular accidents, and advanced renal damage. Postural

hypotension may occur, and the praeor response to epinephrine may be reduced.

Peripheral neuritis, evidenced by paresthesias, numbness, tingling, and/or pain observed.

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Although there has been no adverse experience



## A Second Hot Line To Moscow Installed —This for Diseases

*Medical Tribune Report*

**WASHINGTON**—There are now two hot lines to Moscow. One is designed to prevent thermonuclear war and the other to prevent disease.

As result of negotiations between HEW Secretary Caspar W. Weinberger and Soviet Minister of Health Boris V. Petrovsky, during Mr. Weinberger's recent visit to the Soviet Union, a Telex communications link has been inaugurated to exchange vital information concerning experimental drugs and discoveries in the areas of cancer, heart disorders, and environmental health. Schizophrenia, influenza, and arthritis data are also expected to be exchanged via the new link.

Dr. Charles C. Edwards, HEW's Assistant Secretary for Health, who accompanied Mr. Weinberger on the trip, stated that the communications system will be of "tremendous benefit" in providing the United States with information about experimental drug testing on human subjects in the Soviet Union. He explained that the Soviet regulations regarding testing on human beings are far less stringent than U.S. rules.

Discussions are now under way to join research efforts in bilateral clinical testing of potentially useful anticancer drugs between the two countries. HEW reports that "five or six experimental cancer drugs have now been traded" between the United States and the Soviet Union for testing purposes.

Also being considered is a proposal to share, via computer terminals, the information assembled by the U.S. National Library of Medicine and the U.S.S.R. Institute of Medical Information.

According to the U.S. authorities, the only other direct communications link between the U.S. Government and the Soviet Union is the hot line in President Nixon's office. Costs of the HEW Telex system are \$10 per month and \$3 per message minute.

Previously, mail communications between the two countries took a total of four weeks' delivery time for a letter to be received and answered.

## Unwanted Pregnancy Occurs in One-Third Despite Birth Control

*Medical Tribune Report*

**NEW YORK**—Despite a contraceptive revolution that has cut the risk of failure by half over the last decade, more than one-third of U.S. couples who use a birth-control method because they do not want any more children experience a pregnancy within five years—and a "substantially higher" proportion will do so eventually.

In only 12 months, 14 percent of these couples have an unwanted pregnancy.

Among couples who intend to have children at a later date, 26 percent encounter a birth-control failure within the first year.

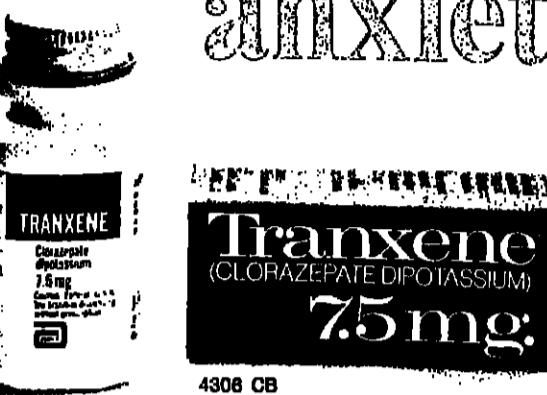
These are among the findings reported by Princeton sociologist Norman B. Ryder in *Family Planning Perspectives*, the quarterly journal of Planned Parenthood's Center for Family Planning Program Development. The findings are based on the 1970 National Fertility Study, of which Dr. Ryder was codirector with Charles F. Westoff. That study included interviews with 6,752 married or formerly married women of reproductive age.

The findings, Dr. Ryder commented, reflect "quite small proportions experiencing contraceptive success, considering its importance for the quality of family life and the presumed level of sophistication of the U.S. population."

He attributed nearly 60 percent of the improvement in prevention of unwanted pregnancies to adoption of oral contraceptives. Only 4.5 percent of pill and IUD users fail to prevent an unwanted pregnancy over a year's time, he said.

# No panacea. No placebo. No antidote for the pressures of everyday living.

## But a drug to help relieve crippling anxieties



Tranxene has just one purpose: to offer effective control of symptoms for the patient with clinically manifested anxiety.

*—the patient whose anxieties are excessive and "inappropriate" to the circumstances at hand*

*—the patient with persistent (and often inexplicable) feelings of dread*

*—the patient who reacts unreasonably to reasonable stresses, to the point of incapacitation*

*—the patient with a sense of impending death or catastrophe (often seen as a complication of organic illness, such as cardiac disease)*

*—the patient with the physical symptoms of acute anxiety: sweating, insomnia, extreme nervousness, palpitations*

### Effectiveness shown in double-blind studies

The clinical investigation of Tranxene took place over four years; treatment periods ranged from

three week to six months.

A total of 50 efficacy studies were conducted, under controlled, double-blind conditions. The overall results showed Tranxene to be highly effective in relieving the symptoms of anxiety.

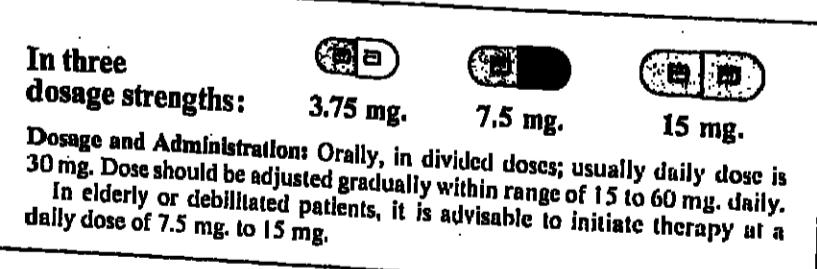
### Well tolerated by patients

Tranxene has an excellent record of patient acceptance. In the clinical studies, serious adverse reactions were not seen at the recommended doses. The side effects most commonly reported were drowsiness, light-headedness and gastrointestinal complaints.

### Minimal cardiovascular effects

In the clinical studies, the only effect seen on blood pressure was the lowering of slightly elevated systolic blood pressure in some patients. There were no reports of bradycardia and, in the two studies where electrocardiographic effects were studied, no evidence of drug-induced alterations in ECGs.

Where anxiety symptoms must be controlled, Tranxene can be a valuable aid in management.



In three dosage strengths: 3.75 mg. 7.5 mg. 15 mg.

Dosage and Administration: Orally, in divided doses; usually daily dose is 30 mg. Dose should be adjusted gradually within range of 15 to 60 mg. daily. In elderly or debilitated patients, it is advisable to initiate therapy at a daily dose of 7.5 mg. to 15 mg.

#### DESCRIPTION:

Chemically, TRANXENE (clorazepate dipotassium) is a benzodiazepine. The empirical formula is  $C_{18}H_{14}N_2O_4$ ; the molecular weight is 408.33. The compound occurs as a fine, light yellow, practically odorless powder. It is insoluble in the common organic solvents, but very soluble in water. Aqueous solutions are unstable, clear, light yellow, and effervescent.

**ACTIONS:** Pharmacologically, TRANXENE (clorazepate dipotassium) has the characteristics of the benzodiazepines. It has depressant effects on the central nervous system. The primary metabolite, nordazepam, reaches peak level in the blood stream at approximately 1 hour. The plasma half-life is about 1 day. The drug is metabolized in the liver and excreted primarily in the urine. (See ANIMAL AND CLINICAL PHARMACOLOGY.)

**INDICATIONS:** TRANXENE is indicated for the symptomatic relief of anxiety associated with the symptoms of physical and psychological dependence. Withdrawal symptoms (similar in character to those noted with barbiturates and alcohol) have occurred following abrupt discontinuation of clorazepate. Symptoms of nervousness, insomnia, irritability, diarrhea, muscle aches and memory impairment have followed abrupt withdrawal after long-term use of high dosage.

Caution should be observed in patients who are considered to have a psychological potential for drug dependence.

Evidence of drug dependence has been observed in dogs and rabbits which was characterized by explosive seizures when the drug was abruptly discontinued or the dose was reduced; the syndrome did not occur when the administration of clorazepate was discontinued.

**Usage in Pregnancy:** Reproduction studies have been performed in rats and rabbits and there was no evidence of harm to the animal fetus. The relevance to the human is not known. Since there is no experience in pregnant women who have received this drug safety in pregnancy has not been established.

It is assumed that TRANXENE or its metabolites is excreted in human milk. Therefore, this drug should not be given to nursing mothers.

**PRECAUTIONS:** In those patients in which a degree of depression accompanies the anxiety, suicidal tendencies may be present and protective measures may be required. The least amount of drug that is feasible should be available to the patient.

Patients on TRANXENE for prolonged periods should have blood count and liver function tests periodically. The usual precautions in treating patients with impaired renal or hepatic function should also be observed.

In elderly or debilitated patients, the initial dose should be small, and increments should be made gradually, in accordance with the response of the patient, to preclude abuse or excessive sedation.

**ADVERSE REACTIONS:** This side effect most frequently reported was drowsiness. Less commonly reported (in descending order of complaints) were: headache, nausea, vomiting, diarrhea, and mental dullness. Blurred vision, dry mouth, headache, and mental confusion. Other side effects included insomnia, tachycardia, hypertension, tachycardia, and hypotension.

**CONTRAINDICATIONS:** TRANXENE (clorazepate dipotassium) is contraindicated in patients with a history of overdose with say drugs. It should be avoided in patients with somatic disease states, careful attention must be paid to possible drug interaction with concomitant medication.

#### MANAGEMENT OF OVERDOSAGE:

As in the management of overdose with say drugs, it should be noted that multiple agents may have been

taken. If vomiting has not occurred spontaneously, it should be induced. Immediate gastric lavage is also recommended. General supportive care, including frequent monitoring of the vital signs and close observation of the patient, is indicated. Hypotension, though unlikely, may be controlled with Levophed® (Levarterenol) or Aramine® (metyrosine). Caffeine and Sodium Benzoate injection, U.S.P. may be used to counteract nervous system depressant effects.

There has been reported a 41-year-old woman who took 25 capsules (187.5 mg.) of TRANXENE. Severe diarrhea and vomiting occurred, but she made an uneventful recovery without hospitalization.

**ANIMAL AND CLINICAL PHARMACOLOGY:** Studies in rats and monkeys have shown a substantial difference between doses producing tranquilizing, sedative and toxic effects. In rats, conditioned avoidance response was minimized at an oral dose of 10 mg./kg.; sedation was induced at 37 mg./kg.; the LD<sub>50</sub> was 1320 mg./kg. In monkeys, aggressive behavior was reduced at the oral dose of 0.25 mg./kg.; sedation (stasis) was induced at 7.5 mg./kg.; the LD<sub>50</sub> could not be determined because of the emetic effect of large doses, but the LD<sub>50</sub> exceeds 600 mg./kg.

Twenty-four dogs were given oral TRANXENE orally in a 22-month toxicity study; doses up to 25 mg./kg. were given. Drug-related changes occurred in the liver: steatosis and cholestasis with minimal hepatocellular damage was found, but biliary architecture remained well preserved.

Eighteen rhesus monkeys were given oral doses of TRANXENE from 3 to 35 mg./kg. daily for 52 weeks. All treated animals remained similar to control animals.

Although total leukocyte count remained within normal limits, it tended to fall in the female animals on the highest doses.

Examination of all organs revealed no alterations attributable to TRANXENE. There was no damage to liver function or structure.

**Reproduction Studies:** Standard studies of fertility, lactation and reproduction were conducted on rats and rabbits. Oral doses in rats up to 150 mg./kg. and in rabbits up to 15 mg./kg. produced no abnormalities in the fetuses and no impairment to fertility and reproductive capacity of adult animals attributable to TRANXENE (clorazepate dipotassium). As expected, the sedative effect of high doses interfered with care of the young by their mothers (see Use in Pregnancy).

**Clinical Pharmacology:** Studies in healthy men have shown that TRANXENE has depressant effects on the central nervous system. Prolonged administration of high doses (120 mg. daily as a single oral dose) was without toxic effects, and abrupt cessation of drug was not followed by serious signs or symptoms.

**Absorption—Excretion:** After oral administration of TRANXENE (clorazepate dipotassium), there is essentially no circulating parent drug. Nordazepam, its primary metabolite, quickly appears in the blood stream with peak levels at about 1 hour. The plasma half-life is approximately 1 day. In 2 volunteers given 15 mg. (50 μC) of <sup>14</sup>C-Tranxene, about 80% was recovered in the urine and feces within 10 days. Excretion was primarily in the urine with about 1% excreted per day on day 10.

**HOW SUPPLIED:** TRANXENE (clorazepate dipotassium) is supplied as capsules in three dosage strengths: 3.75 mg. capsules (gray with white cap) in bottles of 100 (NDC 074-3417-13) and 500 (NDC 074-3417-03); 7.5 mg. capsules (gray with maroon cap) in bottles of 100 (NDC 074-3418-13) and 500 (NDC 074-3418-03); 15 mg. capsules (off gray) in bottles of 100 (NDC 074-3419-13) and 500 (NDC 074-3419-03).

*Continued from page 6*

education is required. At the present time, it is set for three years, and it may be prolonged. In order to teach so many students at one time, most of the teaching is done by video assistance, especially in anatomy and pathology, using drawing, pictures, etc. After graduation, if one is interested in a special field—for instance, chest disease or chest surgery—he or she will be assigned to dissect the chest organs and learn more pathology of the chest diseases by examining gross specimens and microscopic slides. However, almost all of the graduates will be sent to serve the mass of people in every corner of China according to the needs, like general practitioners of this country. They stay in the district hospital or commune medical center. After a certain length of time, usually two to three years, they will be selected and recalled to the medical school for further training in specialized fields.

After visiting two medical schools and three hospitals, one for postgraduate training, my impressions of medicine in today's China, especially in the field of medicine and pathology, are as follows:

### Lacking in Automation

There is practically no automation. They are doing all the hematology and common blood chemistry tests by manual methods. They do have spectrophotometers made in China, although few in number. There is no monitor system, coronary care, or intensive care unit, although seriously ill patients are constantly attended by nurses aides in a private room. An auto-processing machine for tissues is available in Capital Hospital only.

They are very rarely doing the sophisticated tests, such as electrophoresis of lipoprotein, Hgb or isoenzymes, radioimmunoassay, and others. ECG machines made in China are available in all the institutions I have visited, and the tracings are quite good. Renal scanning is performed only in the Capital Hospital, which is for postgraduate training. Frozen sections are still being done by the old-fashioned carbon dioxide machines, except in Capital Hospital, where a cryostat machine is used.

Most of the microscopes are monocular type, and some of them are quite old but in good condition. Chung Shan Medical School and Capital Hospital (formerly Peking Union Medical School) have good tissue museums, especially the former. However, the color of the specimens in Chung Shan Medical School has faded, and I was told that this was due to the shortage of chemicals shortly after 1949.

In the field of internal medicine, much attention and effort have been given to the elimination of the infectious and parasitic diseases and to treatment of diseases by traditional Chinese herb medicines and acupuncture. Kala Azar used to be a very prevalent disease in northern China, including Peking city, but now it has been completely eliminated. The reasons given are disappearance of the transmission agent, the sandflies and animal reservoirs, and the early admission and treatment of the infected individuals. This is also true of typhoid fever and other infectious and parasitic diseases.

In conclusion: In a span of 24 years, China under the present regime has succeeded completely or partially in:

- Delivery of medical services to the mass of people by distributing medical and paramedical personnel in rural as well as in urban areas.

- Elimination of infectious and parasitic diseases.

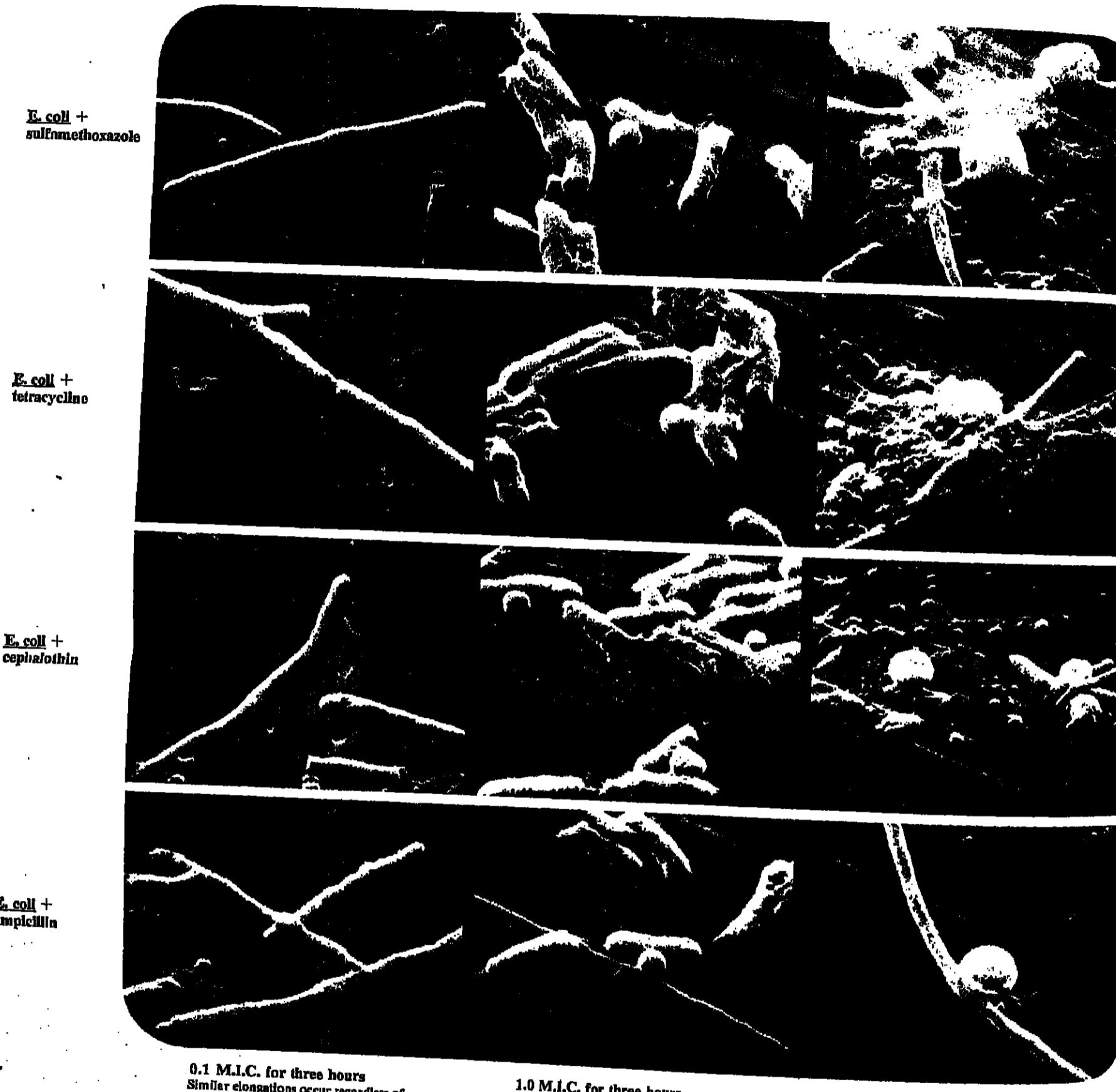
- Training medical and paramedical personnel in meeting the delivery of medical services to the mass of people.

However, they are (1) deficient in automation both in diagnosis and treatment of diseases and (2) deficient in the more refined and sophisticated instruments and methods in both diagnosis and treatment, which to them for the time being is the least important in the delivery of medical services.





# In Vitro Research and the Three-Dimensional World of SEM



## The Scanning Electron Microscope (SEM) reveals the effect of certain antibacterials on bacterial morphology

**The *in vitro* experiment.** These SEM photomicrographs were taken as part of a study exploring the effects of various antibacterials with different modes of action on the surface morphology of bacteria. The scanning electron microscope was used because of its ability to show three-dimensional views of organisms, enabling better definition and appreciation of surface morphology. For this portion of the experiment, *E. coli* were exposed to the following agents: sulfamethoxazole, a chemical drug which acts by interference with para-aminobenzoic acid utilization; tetracycline, which interferes with intracellular protein synthesis; and cephalothin and ampicillin, which are cell-wall-active drugs. Strains of *E. coli*, each susceptible to the respective antibacterials, were exposed for 15, 30, 60, 120 and 180 minutes, and 18 hours to several concentrations of each agent. Following the 180-minute or three-hour exposures to the antibacterial agents at 0.1 M.I.C., 1.0 M.I.C. and 10 M.I.C., photoscans of the *E. coli* were taken. As shown above, regardless of the antibacterial agent used or its mode of action

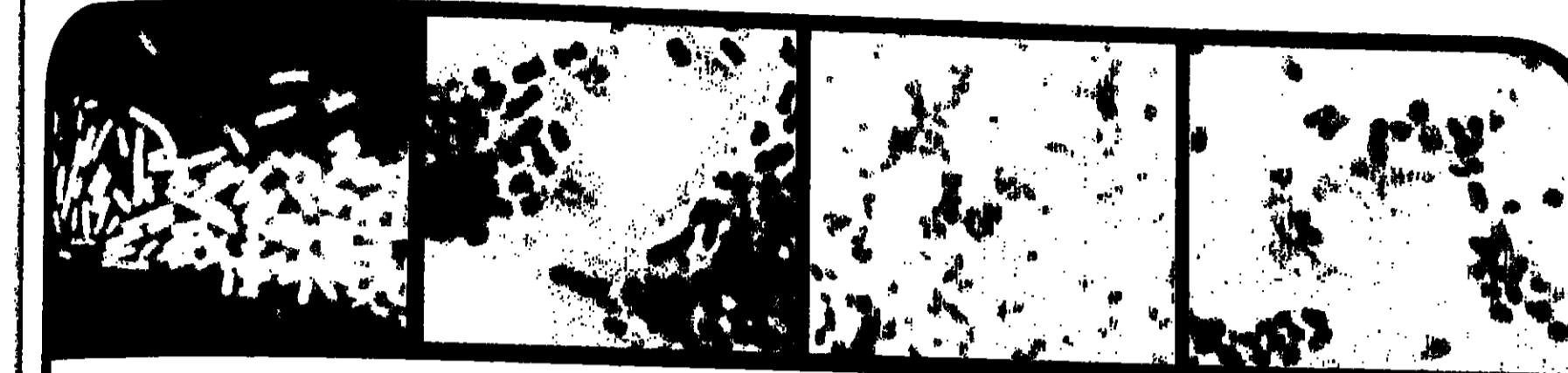
the changes in surface morphology were remarkably similar... elongation at low drug concentrations, midcell defects at higher concentrations and ultimate progression to spheroplast-like forms.<sup>1</sup>

**The interpretation.** "At present, the significance of these observations in clinical infection must be considered with caution, but it is hoped that these data will stimulate a reevaluation of present concepts of the nature and role of morphological variants of bacteria exposed to a variety of antibacterial factors."<sup>2</sup> It should be noted that this information represents only *in vitro* research. No clinical significance can be drawn from this study concerning the effectiveness of any of the agents discussed, as it is not possible to extrapolate *in vitro* data to humans. This information is presented to demonstrate the continuing research activities in the area of antibacterials, particularly modes of action and surface morphology.

<sup>1</sup>Data on file; Hoffmann-La Roche Inc., Nutley, N.J.

<sup>2</sup>Antimicrob Agents Chemother, 1:164, 1972.

## Observations from clinical practice



**Effective control of primary susceptible bacterial offenders**  
Gantanol® (sulfamethoxazole) is effective against susceptible strains of *E. coli* and other gram-negative and gram-positive organisms, including *Klebsiella-Aerobacter*, *Staph. aureus* and *Proteus mirabilis*.

**Prompt antibacterial blood and urine levels—in from 2 to 3 hours**

After an initial 2-Gm adult dose, antibacterial levels usually appear in blood and urine in from 2 to 3 hours. This rapid initiation of effective antibacterial activity facilitates decisive treatment of nonobstructed urinary tract infections, and may also help avert possible sequelae.

**Around-the-clock coverage for 14 days**

Mounting evidence in current medical literature suggests a minimum of 14 days' continuous therapy for urinary tract infection.\* Following the initial 2-Gm adult dosage, each 1-Gm dose of Gantanol provides up to 12 hours of antibacterial activity

during the treatment period. When cystitis or pyelonephritis is more severe, *t.i.d.* (q. 8 h.) dosage schedules may be needed. Both regimens provide therapy around the clock, especially important during sleep, when normal urinary retention tends to favor bacterial proliferation. And convenient for the patient, as his sleep need not be disturbed for middle-of-the-night medication.

**Also effective in certain nonobstructed chronic and recurrent urinary tract infections**

Nonobstructed urinary tract infections such as cystitis or pyelonephritis—chronic and/or recurrent—develop more commonly in the elderly and debilitated, and response to Gantanol (sulfamethoxazole) is often highly satisfactory. Gantanol is generally well tolerated with relative freedom from complications; the most common side effects are nausea, vomiting and diarrhea. Frequent c.b.c.'s and urinalyses with microscopic examination are recommended during therapy.

\*Data on file, Hoffmann-La Roche Inc., Nutley, N.J.

In nonobstructed cystitis due to susceptible organisms

### Gantanol® B.I.D. (sulfamethoxazole)

#### Basic therapy

Before prescribing, please consult complete product information, a summary of which follows:

**Infections:** Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriology and clinical response; add sulfonamide acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibiotics including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide *Nasal* levels as variations may occur; 20 mg/100 ml should be maximum total level.

**Contraindications:** Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

**Warnings:** Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections, and will not eradicate or prevent sequelae (bacteremia, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase deficient individuals in whom dose-related hemolytic jaundice may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

**Adverse Reactions:** Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia); hemolytic anemia; purpura, hypoprothrombinemia and methemoglobinemia;

allergic reactions (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritis, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); gastrointestinal reactions (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); CNS reactions (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); miscellaneous reactions (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid opacifications in rats following long-term administration. Cross-sensitivity with these agents may exist.

**Dosage:** Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjuvatively with pyrimethamine in congenital toxoplasmosis).

**Usual adult dosage:** 2 Gm (4 tabs or 1 teasp.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

**Usual child's dosage:** 0.5 Gm (1 tab or 1/2 teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

**Supplied:** Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

**ROCHE**  
Roche Laboratories  
Division of Hoffmann-La Roche Inc.  
Nutley, N.J. 07110

## MDs Might Be More Helpful If They Tried Diabetes Diets

Medical Tribune World Service

BRUSSELS—Every physician with diabetic patients was urged to follow their diet himself for two weeks so that he could better understand what they have to live with for the rest of their lives.

Prof. J. J. Groen of Leiden, the Netherlands, said: "If we want our patients—middle-aged or young—to keep their regi-

**Myeloma Symposium Is Set For Atlanta Oct. 22-23**

Medical Tribune Report

BETHESDA, Md.—HEW's National Cancer Institute is sponsoring a symposium on Myeloma October 22-23 in Atlanta, Ga.

The meeting is sponsored by the National Cancer Institute's Clinical Investigations Branch and the Cancer Clinical Investigation Review Committee, a group of Federal and non-Federal scientists who evaluate new treatments for cancer.

Chairman of the symposium is Dr. William C. Levin, Professor of Medicine and director of the Hematology Research Laboratory, University of Texas Medical Branch, Galveston.

## A Microbicidal Douche

Clinically Effective in Vaginal Moniliasis  
Trichomonas vaginalis-Vaginitis  
Nonspecific Vaginitis

BETADINE DOUCHE is virtually nonirritating to vaginal mucosa. Low surface tension, with uniform wetting action, assists penetration into vaginal crypts and crevices.

BETADINE DOUCHE, used *therapeutically*, requires two tablespoonsful to a quart of lukewarm water daily for a week or two, as needed.

It may also be used as a *routine cleansing douche*, utilizing one tablespoonful to a quart of lukewarm water once or twice a week. SUPPLIED: 8 oz. & 1 gal. plastic bottles.

Purdue Frederick  
© Copyright 1973, THE PURDUE FREUDERICK COMPANY  
HARVARD, MASSACHUSETTS

Therapy of Infectious Vaginitis

### Capsule Thermometer



### Unnecessary Surgery

MONTREAL—Last year 29,000 hysterectomies were performed in the province of Quebec—as many as in all of Great Britain.

"Were all these operations necessary?" Dr. Sidney S. Lee, of McGill University, asked a symposium on health research priorities in Canada.

"Why does the catarract surgery patient in Quebec stay in hospital four days longer than the same patient in Massachusetts? And do we know whether or not tonsillectomies should be performed and on what clinical basis?"

Some of the money spent on "unnecessary surgery and hospitalization," he suggested, could more usefully be applied to clinical research.

Health services research in all of North America has found to be "chaotic, multicentric, and frequently downright confused."

Dr. Lee, formerly of Harvard University's Faculty of Public Health, is now associate dean in McGill's Faculty of Medicine and is an expert on regional health planning.

### Abortion Cost Attacked

THE HAGUE—The prevailing cost of about 350 to 400 guilders (about \$130-150) for an abortion at an authorized clinic in the Netherlands has been attacked by a woman member of Parliament. The fee is "out of proportion" to the actual costs of an abortion, she said, and asked for a government inquiry to determine whether the fee should be lowered on humanitarian grounds.

### Limb Center Set Up

WROCŁAW, POLAND—A limb reimplantation and vessel traumatology center has been set up at the Trzebnica Hospital in Wroclaw, one of the first in Europe. Head of the team is Dr. Ryszard Kocobi, leader of a group that attracted attention when it successfully carried out the restoration of a hand completely severed by a circular saw two years ago. The operation, carried out at a small district hospital, was the first of its kind in Poland, according to hospital authorities.

### Surgery Used for HBP

ATHENS—Surgical interventions have been carried out in about 100 patients with different forms of hypertension here over the last 10 years, according to Dr. Eftihios Voridis, Professor of Medicine at Athens University and vice-president of the Committee for the Struggle Against Hypertension. Operations have included nephrectomies, revascularization of ischemic kidneys, removal of adrenal tumor, and repair of coarctation of the aorta.

### Orthopedists Needed

UTRECHT, THE NETHERLANDS—The Netherlands' 150 orthopedic surgeons are unequal to the growing need for their services in this nation of 13,000,000 persons, according to a statement by The Netherlands Orthopedic Society.

The causes were given as: advances in medical care and sociomedical provisions; greater prosperity among the patient population; increasing incidence of accidents; and a longer life span.

The society said that too many patients are referred to orthopedists because of insufficient education of general practitioners in orthopedics. It also expressed regret that not all university clinics have orthopedic departments; that universities provide inadequate opportunity for research; and that among the new academic hospitals in Amsterdam, Utrecht, and Leyden, only 35 of each 1,000 beds are designated for orthopedics.

Wednesday, October 10, 1973



Monday's child is fair of face,  
Tuesday's child is full of grace,  
Wednesday's child is full of woe...

—first three lines of anonymous nursery rhyme

# Managing Wednesday's Child... the child with MBD

And Ritalin can play an important part in the total rehabilitation program of the MBD child, which includes remedial measures at home and at school. It's currently the drug of choice in many MBD situations!

Ritalin is well tolerated. It can help control the excessive motor activity of the MBD child and ameliorate behavioral and learning problems.

Of course, Ritalin is not indicated for childhood personality and behavioral disorders not associated with MBD.

But, properly diagnosed and treated, MBD—Minimal Brain Dysfunction—can be brought under control so that the afflicted child can develop normally.

The capsule thermometer is a radio-transmitter capsule to monitor deep-body temperatures via a radio receiver placed nearby. It will allow doctors to check localized temperature changes that could reveal the presence of infection or other disorders.



**Ritalin®**  
(methylphenidate)  
only when medication  
is indicated

Ritalin® hydrochloride®  
(methylphenidate hydrochloride)

#### TABLETS

**INDICATION**  
Minimal Brain Dysfunction in Children—as adjunctive therapy to other remedial measures (psychological, educational, social). Specific etiology of Minimal Brain Dysfunction (MBD) is unknown. There is no specific diagnostic test. Adequate diagnosis requires the use not only of medical but of special psychological, educational, and social resources. Characteristics commonly reported include: chronic hyperactivity, distractibility, short attention span, emotional lability, impulsivity, and moderate to severe hyperactivity; minor neurological signs and abnormal EEG. Learning may or may not be impaired. The diagnosis of MBD must be based upon a complete history and physical examination, and not solely on the presence of one or more of these manifestations. Drug treatment is not indicated for all children with MBD. Stimulants are not intended for use in the child who exhibits symptoms secondary to environmental factors or for primary psychiatric disorders, including psychoses. Appropriate educational, psychological, and social intervention is generally necessary. When remedial measures alone are insufficient, the decision to prescribe stimulant medication will depend upon the physician's assessment of the chronicity and severity of the child's symptoms.

**CONTRAINDICATIONS**  
Marked hypertension, tachycardia, and agitation, since Ritalin may aggravate these symptoms. Also contraindicated in patients known to be hypersensitive to the drug and in patients with glaucoma.

**WARNINGS**  
Ritalin should not be used in children under six years, since safety and efficacy in this age group have not been established. Safety and efficacy and safety and efficacy of long-term use of Ritalin in children with minimal brain dysfunction are not yet available. Although a causal relationship has not been established, suppression of growth (i.e., weight gain and/or height) has been reported with long-term use of stimulants in children. Therefore, children requiring long-term therapy should be carefully monitored.

Ritalin should not be used for severe depression of either endogenous or exogenous origin or for the prevention or treatment of convulsive disorders. Ritalin may lower the convulsive threshold in patients with or without prior seizures; with or without prior EEG abnormalities, even in absence of seizures. Safe concomitant use of anticonvulsants and Ritalin has not been established. If seizures occur, Ritalin should be discontinued. Use cautiously in patients with hypertension. Blood pressure should be monitored at appropriate intervals in all patients taking Ritalin, especially those with hypertension.

**Dosage and Administration**  
Ritalin may decrease the hypotensive effect of guanethidine. Use cautiously with pressor agents and MAO inhibitors. Ritalin may inhibit the metabolism of coumarin anticoagulants, anticonvulsants (phenobarbital, phenytoin), tricyclic antidepressants (imipramine, desipramine), and tricyclic antihistamines (trimepramine, diphenhydramine). Downward dosage adjustments of these drugs may be required when given concomitantly with Ritalin.

**Usage in Pregnancy**  
Additional premarketing production studies to establish safe use of Ritalin during pregnancy have not been conducted. Therefore, until more information is available, Ritalin should not be prescribed for women of childbearing age unless, in the opinion of the physician, the potential benefits outweigh the possible risks.

**Drug Dependence**  
Ritalin should be given cautiously to emotionally unstable patients, such as those with a history of drug dependence or alcoholism, because such patients may increase dosage on their own initiative. Chronically abusive use can lead to marked tolerance and physical dependence. There is a risk of development of abnormal behavior. Frank psychotic episodes can occur, especially during parental abuse. Careful supervision is required during drug withdrawal, since severe depression as well as the effects of chronic overdosage with consequent long-term follow-up may be required because of the patient's basic personality disturbances.

**PRECAUTIONS**  
Patients with an element of agitation may react adversely to Ritalin. If necessary, sedatives should be used. Periodic CBC, differential, and platelet counts are advised during prolonged therapy.

**ADVERSE REACTIONS**  
Nervousness and insomnia are the most common adverse reactions but are usually controlled by reducing dosage and omitting the drug in the afternoon or evening. Other reactions include: hyperactivity, including tics and Tourette's syndrome; somnolence, dermatitis, erythema multiforme with histopathological findings of necrotizing vasculitis, and thrombocytopenic purpura; anorexia; nausea; dizziness; palpitations; headache; dyskinesthesia; drowsiness; blood pressure elevation; chest pain; tachycardia; bradycardia; arrhythmia; cardiac arrhythmia; abdominal pain; weight loss during prolonged therapy. Toxic psychosis has been reported. Although a definitive causal relationship has not been established, the following has been reported in patients taking this drug: leukopenia and/or agranulocytosis; a few instances of scalp hair loss.

In children, loss of appetite, abdominal pain, weight loss during prolonged therapy, insomnia, and tachycardia may occur more frequently; however, any of the other adverse reactions listed above may also occur.

**DOSE AND ADMINISTRATION**  
Children with Minimal Brain Dysfunction (6 years and over): Start with small doses (e.g., 5 mg before breakfast and lunch) with gradual increments of 5 to 10 mg weekly. Daily dosage may be increased to 60 mg. If improvement is not observed after appropriate dosage adjustment over a one-month period, the drug should be discontinued.

If paradoxical aggravation of symptoms or other adverse effects occur, reduce dosage, or, if necessary, discontinue the drug.

Ritalin should be periodically discontinued to assess the child's condition. Improvement may be sustained when the drug is either temporarily or permanently discontinued.

Drug treatment should not and need not be indefinite and usually may be discontinued after puberty.

**HOW SUPPLIED**  
Tablets, 20 mg (peach, scored); bottles of 100 and 1000.

Tablets, 10 mg (pale green, scored); bottles of 100,

500, 1000 and Accu-pak blister units of 100.

Tablets, 5 mg (pale yellow); bottles of 100, 500, and 1000.

Consult complete product literature before prescribing.

CIBA Pharmaceutical Company

Division of CIBA-GEIGY Company

Summit, New Jersey 07901

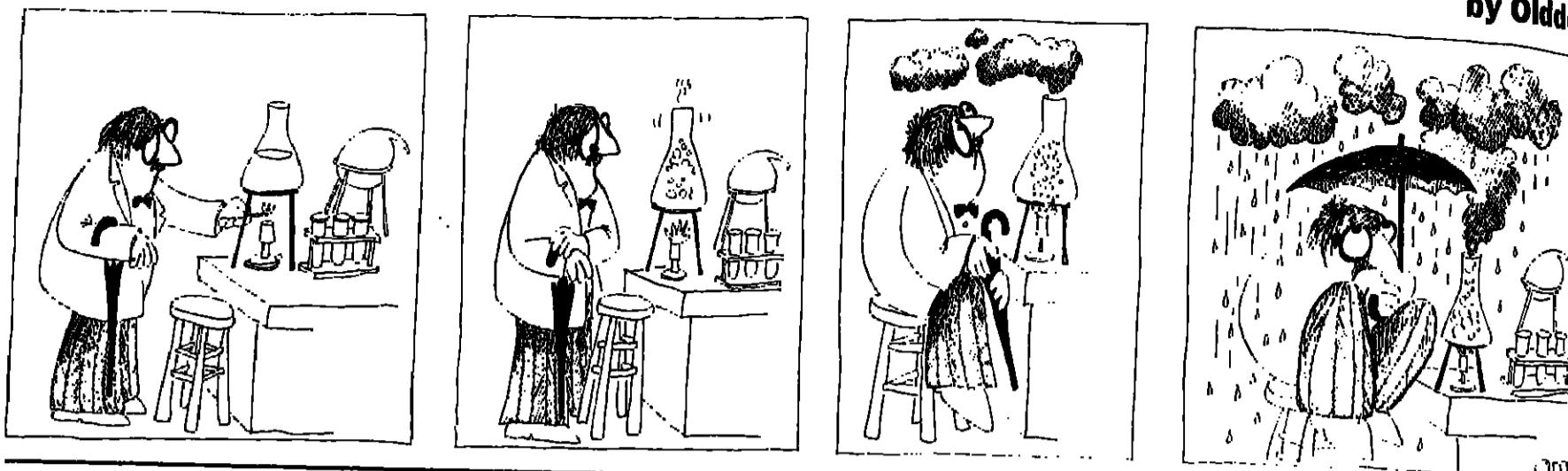
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C I B A



## Clinical Trials

**Expert Hits Qualms on Diagnostic Radiology**

Medical Tribune Report

**WASHINGTON**—Suggestions that diagnostic radiologic procedures and exposures should be cut in half are "folly and arrant nonsense," Dr. Richard H. Chamberlain told the International Radiation Protection Association meeting here.

Dr. Chamberlain, chairman of the Department of Radiology at the University of Pennsylvania, was responding to warnings concerning the danger of overexposure in diagnostic radiation.

The warnings came from a variety of speakers at the five-day conference, including consumer activist Ralph Nader, who charged that patients are receiving 10 times more radiation than necessary from diagnostic x-ray procedures.

What affected Dr. Chamberlain most, however, and caused him to add strong words to a prepared text, was the calculation of Ralph E. Lapp, Ph.D., that current dosage rates, there will be some 100,000 iatrogenic cancer deaths related to medical diagnostic radiation by the year 2000.

Charging that the nuclear physicist had "strayed from his area of competence," Dr. Chamberlain declared that Dr. Lapp's calculation was based on many assumptions "and is not scientific fact."

**200,000 Procedures Done**

Nearly 200,000 diagnostic radiation procedures are carried out at the Hospital of the University of Pennsylvania each year, Dr. Chamberlain said.

"We not only interpret the films and do the associated procedures and fluoroscopies, but also know what the patients are being studied for," he went on.

In a large proportion of the cases, we personally consult with the other physicians involved regarding the original problem and its follow-up. Beyond any shadow of doubt, our examinations are either the vital factor or major one in saving tens of thousands of lives per year."

To suggest that such examinations should be cut in half not only is "folly and arrant nonsense," he said, but also would "literally be condemning tens of thousands of patients to misery and untimely death and for a highly dubious hypothesis of exaggerated emphasis."

Dr. Chamberlain observed that the true value of a diagnostic aid, such as radiology, cannot be measured in mortality statistics alone.

"The quality of life and the sense of well-being and health of the individual is of primary concern."

He pointed against the imposition of rigid rules regarding medical radiology because "in a high proportion of radiological examinations one cannot anticipate the beneficial yield until after the examination has been performed, and omission of a

vital examination can lead to a disaster far more important than a possible or statistical risk from the radiation exposure."

"I will wholeheartedly urge that every effort be expended to ensure that considered judgment is used in each decision for radiation use," he said, "but I view as folly emphasis on expensive, elaborate, and es-

sentially useless programs of national record keeping of medical exposures, simplistic rules as to the justification of abortion on a radiation basis, and undue emphasis on radiation protection programs in areas which should be using their energies to furnish more medical radiological diagnosis for their people."

Noting that he has spent a major part of his life urging "thrift" in the use of radiation, Dr. Chamberlain stated that it is not "easy or cheap" to cut procedures or exposures in half, as had been suggested.

"It may well cost three times as much or more for the same diagnostic information," he said.

"If I were a patient denied such benefits by any such simplistic folly, I'd take up after the person responsible with an ax."

**What the Sleep Research Laboratory recorded about DALMANE™ sleep...<sup>1</sup>**

(flurazepam HCl)

- reduced sleep latency
- decreased time awake after sleep onset
- increased total sleep time

The polygraphic techniques of the sleep research laboratory have objectively documented the value of Dalmane (flurazepam HCl) for patients with difficulty falling asleep or staying asleep.

Hundreds of hours of monitored sleep<sup>1</sup> have shown that one 30-mg capsule of Dalmane at bedtime generally induced sleep within 17 minutes, significantly reduced time awake after sleep onset and provided 7 to 8 hours of sleep. Dalmane effectiveness was maintained even over 14 consecutive nights of administration, demonstrating the consistent effectiveness of Dalmane.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening, in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Through physical and

psychological dependence have not been reported on recommended doses; use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or over dosage, have been reported. Also reported were headache,

heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypertension, shortness of breath, pruritis, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, elevated restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubin and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.

**What the patients reported when they awoke<sup>1</sup>**

- more rapid sleep induction
- increased duration of sleep

The utility of any sleep medication depends, ultimately, on patient acceptance. For this reason, sleep laboratories evaluating Dalmane (flurazepam HCl) have obtained the patients' own estimates of their sleep immediately on awakening in the morning. These subjective evaluations have been in strong agreement with the polygraphic records, confirming polygraphic evidence of Dalmane effectiveness compared to placebo.

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**DALMANE®**  
(flurazepam HCl)  
When restful sleep is indicated

**One 30-mg capsule h.s.—usual adult dosage**  
(15 mg may suffice in some patients)  
**One 15-mg capsule h.s.—Initial dosage for elderly or debilitated patients**

**ROCHE LABORATORIES**  
Division of Hoffmann-La Roche Inc.  
Nutley, New Jersey 07110

**Residency Program Funded**

Medical Tribune Report

**ST. LOUIS**—HEW has awarded \$348,000 to Washington University School of Medicine here to develop and operate a residency program in primary care to help internists and pediatricians qualify for board examinations in internal medicine and pediatrics.

by Oldden

significant decrease in muscular fatigue during isotonic work. The study was conducted while the investigator was at Kent State University, Canton, Ohio.

After 18 male college students ingested 15 mg. of d-amphetamine sulfate, the integrated action potentials produced by isotonic work of the triceps brachii were not significantly lower than those produced when no capsule or placebo was taken. Dr. Graham assumed that a "decrease in the amount of integrated action potentials at a specific load indicated greater muscular efficiency at that load." The drug, therefore, did not appear to alter isotonic contractile efficiency.

During isometric contractions of the triceps of another 18 men, however, the same dosage of d-amphetamine sulfate did significantly decrease integrated action potentials. The significant decrease occurred when the d-amphetamine means were compared with the control means but not when compared with the placebo means.

In a few activities that require isometric work, "such as static exercises in gymnastics and wrestling, or work involving heavy resistance whereby the movements are not rhythmic," d-amphetamine "could prolong endurance and increase the strength of the individual," Dr. Graham explained.

**Muscle Fatigue Not Delayed By Use of Amphetamines**

Medical Tribune Report

**FARMVILLE, VA.**—"Ingestion of d-amphetamine will not significantly delay the onset of local fatigue in most cases of muscular work," according to Gerald P. Graham, Ph.D., of Longwood College here.

Noting that most physical activities use the isotonic movement of muscles, he said that in a double-blind study he found no

**IMMATERIA MEDICA**

By DUDLEY STRAUS

**What's in a number?**

We're beginning to think that the Martians may have already landed here, numbered rather than named, and anxious to make contact with one another. But why through this column?

In May we reported our first communication from a number—this one at West Virginia University Medical Center in Morgantown. We erroneously read the number as 36100 over 83005005 (this is important) and subsequently printed a correction from the number, which wanted to be spelled correctly as 36100 over 83005005.

Now we've received the following letter from an unidentified part of Chicago (not even a zip code number) addressed to the original number, care of us:

**Dear 36100 over 83005005:**

"I think you are to be congratulated on the nature way you resolved your identity crisis in the August 22 Immateria Medica.

"These stressful situations do occur, and when they do, they are often accompanied by acute psychic challenge.

"I know a perfectly charming alphanumeric who once suffered an accidental prefix omission. As you might well imagine, it took years of therapy for her to regain an acceptable self-image. At one point in her treatment, she regressed so far that she could be reached only with simple quadratic equations!

"I also know of a pure odd-integer digital who was somewhat casually converted into a metric equivalent. Imagine his anguish and despair when he discovered that not only had his decimal been misplaced . . . his last two digits had been rounded off, as well!

"If I seem a bit emotional about these matters, a glance at my signature will explain why.

**Good Luck!**  
36100  
83005005\*

Our problem is our uncertainty about the propriety of becoming a letter drop for numbers, "charming alpha-numerals" or not. What are they up to? Are they planning to take over the country? Move in on the imported tulip bulb racket?

Any advice about when we should call in appropriate investigative agencies would be appreciated, along with some notion about which agencies are the ones for the job.

Lawyers! The University of Southern California held a summer institute entitled "The Psychiatrist as Expert Witness and Consultant in Civil and Criminal Legal Issues." We were somewhat taken aback by a listing, among the faculty, that read:

**"Dorothy K. Davis, Esquire."**

Unsure of our ground, we first called the New York Bar Association to find out whether this was proper; the answer was No.

Next, we called the New York Women's Bar Association with the same question; the answer was Yes.

Clearly, our next step is the Supreme Court.

And while we're on odd formulations, we note that a "Memo to Newsman" about a meeting of the American Roentgen Ray Society said: "The News Room is Rooms 342 and 344."

The fifth Buffalo (N.Y.) Conference on Computers in Clinical Medicine is being held at the end of the month. We were particularly taken with the last item in the program's section called "General Information":

"Canadian physicians should remove narcotics to avoid difficulty at customs inspections."